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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,861	01/15/2002	Wei Luo	CISCP733	1638

26541   7590   02/26/2007
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EXAMINER
TANG, KAREN C

ART UNIT	PAPER NUMBER
2151	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)
Office Action Summary		10/051,861	LUO ET AL.
		Examiner	Art Unit
		Karen C. Tang	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 November 2006</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-28</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some *   c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.1 14, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.1 14. Applicant's submission filed on 11/28/06 has been entered.

- Claims 1-28 are presented for further examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In independent claims 1, 14, 18, and 25, it is rather confusing as toward the newly amended language: "wherein authentication of the remote user is performed without contacting an AAA server associated with the virtual home gateway." while in Claim 1, Lines 8-9 indicates that "sending a request to authenticate the remote user from the virtual home gateway to the AAA server located within said virtual private network;" (i.e., the authentication of the remote user is performed with AAA server). The two limitations are contrary, and are opposite of each

other. For the examining purpose, the newly amended portion that is indicating the

"..authentication...without contacting an AAA., etc." is being ignored.

Furthermore, in claims 1-28, it is unclear whether the "an AAA server" is the same as

"the AAA server", please specified the differences. The termination is too closely related and is

causing confusion.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10, 12-17 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Fulton et al hereinafter Fulton (US 2002/0010865) in view of Applicant Admitted Prior Art

(AAPA).

1. Referring to Claims 1 and 25, Fulton teaches a method for providing authentication in

a network having an AAA server, the method comprising:

receiving a request from a remote user for connection with a network (refer to 0025) at a

virtual home gateway (PVC, refer to 0037, 0102), said virtual home gateway in communication

with a plurality of virtual private networks (refer to 0025, secured network in communication to

various other network);

associating the remote user with the network (refer to 0038, table 1, page 2), at the virtual

home gateway (refer to 0038).

sending a request to authenticate the remote user from the virtual home gateway to the

AAA server (refer to 0060, 0101).

connecting the remote user to the network if the AAA server authenticate the user (refer

to 0101).

A computer readable storage medium for storing the codes (computing device, which is

inherently comprises memories that store codes, refer to 0025).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to combined the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents

unauthorized user from obtaining remote access to the users and demands substantial admin

resources.

Fulton did not expressly indicate the AAA server located within said virtual private

network.

AAPA indicate the server is within the virtual private network (refer to Page 3, Lines 17-

21).

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents

unauthorized user from obtaining remote access to the users and demands substantial admin

resources.

2. Referring to Claims 2 and 26, Fulton teaches wherein associating the remote user comprises receiving a network ID and address of an AAA server of the network (refer to 0060, 0064, 0198, 0226, 0298).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combined the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

3. Referring to Claim 3, Fulton teaches the network ID blinds a profile of the network to a routing table (refer to 0070) of the virtual home gateway (it is inherent that routing table comprises the network information so that can route data accordingly, refer to 0025, 0070, and 0090).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combined the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents

unauthorized user from obtaining remote access to the users and demands substantial admin

resources.

4. Referring to Claims 4 and 27, Fulton teaches associating the remote user comprises

sending a request to a service provider AAA server to authorize the remote user (authenticates,

refer to 0038, Table 1, page 2, and paragraph 0101).

5. Referring to Claims 5 and 28, Fulton teaches wherein the service provider AAA server

contains the address of the network's AAA server (refer to 0060 and 0064, 0097).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents

unauthorized user from obtaining remote access to the users and demands substantial admin

resources.

6. Referring to Claim 6, Fulton teaches wherein sending a request to authenticate the

remote user comprises routing the request using a customer routing table of the network (refer to

0025, 0101, 0070, 0097).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

7. Referring to Claim 7, Fulton teaches wherein connecting the remote user to the network comprises setting up a PPP session for the remote user (refer to 0178, 0192, 0196, 0274).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

8. Referring to Claim 8, Fulton teaches comprises sending an accounting request to the network's AAA server (refer to 0097).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

9. Referring to Claim 9, Fulton teaches comprises sending an accounting request to the service provider's AAA server (refer to 0033, 0060, 0082, 0097).

10. Referring to Claim 10, Fulton teaches wherein accounting information sent to the network's AAA server is different than accounting information sent to the service provider's AAA server (refer to 0097, 0064, 0082).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

11. Referring to Claim 12, Fulton teaches wherein associating a remote user with the network comprises identifying the network based on a dial-up phone number (PSTN, ISDN, 0101, and 0031).

12. Referring to Claim 13, Fulton teaches wherein associating a remote user with the network comprises identifying the network based on the circuit ID (refer to 0031-0033, 0041, 0066, 0198, and 0226).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combined the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

Claims 11, 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulton et al hereinafter Fulton (US 2002/0010865) in view of Applicant Admitted Prior Art (AAPA) in further view of Hagan, W, Alexander hereinafter Hagan (US 2002/0075844).

1. Referring to Claim 11, Fulton teaches wherein associating a remote user with the network comprises identifying the network (refer 0038, Table 1, and page 2 0300-0302).

Fulton Nor AAPA discloses about the domain name.

Hagan discloses the domain name associated with the network (refer to 0049)

It would have obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Hagan and Fulton because they both deal with accessing private network and their resources. Furthermore, the teaching of Hagen to allow wherein the information received from the remote user is a domain name would improve functionality of Fulton's system by maximizing communication compatibility of all participating user/clients and therefore increase efficiency of providing information over the network.

2. Referring to Claim 18, a system for providing authentication in a virtual private network having an AAA server, the system comprising:

a virtual home gateway (PVC, refer to 0038) configured to receive requests from a remote user for connection with a network (refer to 0102), send a request to authenticate the remote user to the AAA server of the virtual private network, and connect the remote user to the virtual private network (refer to 0101);

a database for storing addresses of network AAA server; and a processor (router, which comprises a processor, refer to 0104,).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combined the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents

unauthorized user from obtaining remote access to the users and demands substantial admin

resources.

Fulton did not expressly indicate the AAA server located within said virtual private

network.

AAPA indicate the server is within the virtual private network (refer to Page 3, Lines 17-

21).

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents

unauthorized user from obtaining remote access to the users and demands substantial admin

resources.

Fulton nor AAPA disclosed a processor operable to look up the address of the network

based on information received from the remote user.

Hagen teaches a processor operable to look up the address of the network based on

information received from the remote user (refer to 0061 and 0175).

At the time of the invention, it would have been obvious to a person of ordinary skill to

the teaching of Hagan and Fulton because they both deal with accessing private network and

their resources. Further, the teaching of Hagan to allow a processor operable to look up the

address of the virtual private network AAA server based on information received from the

remote user would improve functionality and efficiency of Fulton's system by integrating the

communication protocol in order to execute instructions and transfer information to and from

resources over the network.

3. Referring to Claim 19, Fulton wherein the information received from the remote user

is a circuit ID (refer to 0031-0033, and 0041, 0066, and 0198, and 0226).

4. Referring to Claim 20, Fulton does not expressly teach the method of claim 18,

wherein the information received from the remote user is a domain name (refer to 0049).

It would have obvious to one of ordinary skill in the art at the time of the invention to

combine the teachings of Hagan and Fulton because they both deal with accessing private

network and their resources. Furthermore, the teaching of Hagen to allow wherein the

information received from the remote user is a domain name would improve functionality of

Fulton's system by maximizing communication compatibility of all participating user/clients and

therefore increase efficiency of providing information over the network.

5. Referring to Claim 21, wherein the information received from the remote user is a dial-

up phone number (refer to 0031, 0198, 0237, and 0296).

6. Referring to Claim 22, wherein a service provider AAA server coupled to the virtual

home gateway and configured to authorize the remote user (refer to 0038, 0101, table 1, page 2).

7. Referring to Claim 23, wherein the database includes network Ids used to bind network profiles to a routing table of the virtual home gateway (refer to 0025, 0070, 0277).

Fulton does not expressly disclose the network is virtual private network.

AAPA indicate the usage of virtual private network along with AAA server (page 1-6).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

8. Referring to Claim 24, wherein the virtual home gateway comprises a plurality of routing tables corresponding to different network (refer to 0025, 0070).

Fulton does not expressly disclose the network is virtual private network.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Fulton and AAPA since the arts are analogous.

The suggestion/motivation for doing so by authenticating the remote user, it prevents unauthorized user from obtaining remote access to the users and demands substantial admin resources.

Response to Arguments

Applicant's arguments filed 12/08/06 have been fully considered but they are not persuasive.

Applicant argued that the cited art did not disclose providing authentication in a virtual

private network by sending a request to authenticate to a remote user to an AAA server located

within the virtual private network.

The argument is respectfully traversed. In response to applicant's arguments against the

references individually, one cannot show nonobviousness by attacking references individually

where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413,

208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986).

. AAPA disclosed the authentication is in a virtual private network having an AAA server,

by sending a request to authenticate to a remote user to an AAA server located within the virtual

private network. Fulton, without expressly indicate the network is the virtual private network,

indicate that the AAA server receive the request to authenticate a remote user, is within the

network. Furthermore, granted that Fulton did not expressly indicate the network is virtual

private network, Fulton did expressly indicate the network comprising firewall (0031), thus,

makes the network, an obvious virtual private network.

Applicant should carefully review the previous rejection and realize the rejection is based

on 35 U.S.C. 103 (a) as an obvious rejection of Fulton in view of AAPA. AAPA comprising the

basic framework of which Applicant based the invention on and comprising a lot of basic

information that is indicated in the claim languages. Fulton, at the same time, taught the

dependent claims as well as most of limitations in the independent claims. If applicant feels after

reviewing the combination of both references and still feel, the references do not teach the

limitations, an interview would be welcome to discuss anything that is not clear in the office action.

Conclusion

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571)272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karen Tang
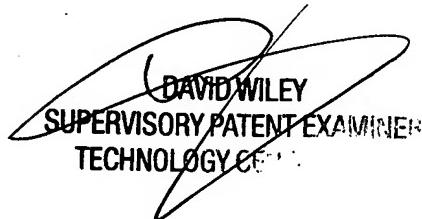
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